EXHIBIT 10

2017 Strategy Paper: Measurement

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Executive Summary

Google's measurement offerings are very complex and multidimensional since we are trying to make digital advertising & marketing as efficient as possible for businesses of all sizes. To make "Micro-Moments" happen, in this paper, we try to offer a framework, mission statement and set of principles to start unifying our measurement efforts. Also, we will go over our biggest bets for measurement in 2017 across our products in DVAA. Here is the 4-pillar and a summary of our top efforts in each section:

- 1) Scaled **Performance** advertising measurement:
  - This item cuts across performance, brands & marketing measurement (but it's closer to performance at this point): We continue to have 4 different attribution modeling products in the market that produce different fractional credits. We made good progress in 2016 in building the foundation and in 2017 we are trying to fully consolidate our attribution solutions across GA, AW, DDM & GA360 to offer a unified solutions as "Google Attribution" which has 2 tiers: free attribution (Airborne) and Enterprise (Attribution 360). The output of Google Attribution gets funneled in AW & DCLK so user flows won't be interrupted. We are also scaling our MMM data pipelines & expanding our partner strategy with MMM providers in 2017.
- 2) Scaled **Brand** advertising measurement
  - Our brand metrics have partial coverage on 3rd party media hence we are reliant more on 3rd party measurement providers (specially for our largest advertisers/agencies who want holistic coverage). It's imperative for us to fix this situation so we are doubling down on DCM; re-positioning it as a holistic campaign measurement solution for advertisers with closing the gaps on Viewability Measurement as a top priority (it's our largest gap); we are also working to bring Reach/GRP metrics to DCM along with Brand Lift. Sales Lift is the trickiest one to scale, but we are investing in our lower funnel sales metrics to prove the ROI impact of YT on sales and to influence budget allocations through a more robust offering with CPG sales lift in international markets, store visit lift and global MMM offering
  - Comparing TV campaigns to YT is a huge opportunity and our foundational investments across panels, tower bridge, **Fiber data**, attribution & measurement are coming together. In 2017, we will double down in TV campaigns measurements across performance & brand via 2 products: Reach and Brand Lift measurement across screens & TV attribution in GA360 (we are also unifying the back-ends). Related, we are doubling down on Google Power Panels (GPPs) and we'll start getting closer to offering our own TV meters and triple screen measurement (in US and 1-2 additional markets in 2017).
- 3) User **Behavior** & **Marketing** measurement
  - GA doesn't have cross-device reporting using Google graph yet so we are investing in both constellation & Narnia 2.0 (Constellation launch is soon and then we'll focus on Narnia 2.0). Regarding O2S, integration of GA with Newfie is a big area as our goal is to make store visit a metric used by all GA customers; we are also investing in an integration with CRM data via SalesForce to further enrich

GA's user data dimensions. GA360 Suite continues to be a focus for our enterprise customers as we bring Consumer Surveys (GCS) to the Suite and also further optimize our sales & services globally for all of Suite products.
- There is a rise of adoption from startups offering a/b testing, dashboarding and more advanced free analytics so we'll be making a big push for adoption of our free measurement products via launch of Data Studio Free, Optimize Free, a revamp of Google Analytics with more focus on analysis/reporting and also expansion of Firebase analytics for app developers.

- 4) **Research** & **Advanced Media** measurement (Non-scaled)
  - We have a number of important efforts here, but a critical one is trying to develop a method to scale sales lift via end-users receipt scanning.

Disclaimer: This paper covers areas that Babak & team have visibility over; so there will be perhaps some measurement areas across DVAA and Ads Org that won't be covered in this doc.

A framework for Google's Measurement offerings

Measurement is a complicated multi-dimensional problem that spans across all of Google's ads organization.
Our objective is to create a unified measurement strategy, but given the extreme complexity of our existing solutions, this will be on-going effort. To get there, we need a framework; and given our complexity, any framework would have imperfections, but at the highest level, Google's measurement offerings can perhaps be organized as below:

1. Scaled **Performance** advertising measurement
   a. This area is focused on clicks, conversions and attribution. Covers our O&O and 3rd party measurements for Search ads, shopping, Display, gmail, etc... and all of measurement for performance media
2. Scaled **Brand** advertising measurement
   a. Brand Measurement framework includes a suite of metrics across the framework of See, Think, Do with reach, viewability, brand lift and sales lift metrics. These metrics include both metrics developed by Google and partnerships with 3rd parties. These metrics are for YT and the network as well as DoubleClick.
3. User **Behavior** & **Marketing** measurement
   a. Most of GA360 products belong in this bucket: covers 1st party user behavior measurement, site/apps optimization, data-agnostic analysis & dashboarding, data management platform to combine 1st party & 3rd party data, holistic media measurement across all marketing touchpoints, attribution modeling and bidding optimization, etc..
4. **Research** & **Advanced Media** measurement (Non-scaled)
   a. Most of the work that AMT team does (and GCAS) belong to this bucket

Measurement Mission Statement & Principles

We have A LOT of measurement products targeted at customers of various sizes in all of possible verticals in all major geos. Here is an attempt to come up with a unified mission statement along with principles to guide us as we move toward a unified measurement strategy.

Mission Statement:

Be trusted source of truth in Marketing Measurement, helping businesses of all sizes globally to gain customer insights, expand their reach & maximize their digital marketing ROI.

Principles:

Simple & Consistent: Easy to use & understand reporting and consistent data wherever they show up with great serviceability

Trustworthy: Trusted & easily verified by advertisers, publishers and also 3rd party measurement solutions with world class methodology

Comprehensive: User-centric cross-platform, cross-channel & cross-device measurement

Actionable: Integrated with AW, DCLK and 3rd parties for purposes of planning, buying & optimization

Measurement Map

We have on-going effort trying to map out our existing measurement solutions to see where our gaps are and what should be our global priorities across Ads organization. This has never been done to our knowledge and it's particularly challenging due to vast nature of it.
Here is a snapshot of what it looks like (Work in progress):
The dimensions are:

- **Columns:** Across Brands, Performance & Behavioral measurement, columns represent the top disciplines required by advertisers.
- **Rows**: represent media channels starting from O&O to 3rd parties to 1st party properties
- **Cells:** represent our specific product offerings and our competitive/completeness status are signified by colors.

We are also trying to apply the same columns to verticals and assign a dollar value to each cell. This is an on-going effort and current working group consists of: Babak, Nithya Sowrirajan (Brands), Susan Jasper, Adrienne Clem (Performance), Kevin Krogmann, Adam Eichner, Tony Fagan. We'd love to have more support and we'll report back our take aways as the map becomes more complete.

2017's bets & topics:

1) Scaled Performance Advertising Measurement in 2017
Consolidation of Attribution Products

Attribution is the primary way digital marketers measure ROI. As such, attribution both showcases and protects the value of Google advertising. Analysis from our economics team shows use of more advanced attribution leading to 3-5% revenue uplift, worth over $1B ( ). Our strategy is to deliver comprehensive, easy-to-use, unified attribution in 2017:

- Targeted at the top 500 advertisers representing 34% of total spend, the 360 tier of Google Attribution will be:
    - Comprehensive: to include all channels, online & offline, through techniques beyond digital attribution like marketing mix modeling
    - Flexible: to accommodate enterprise client specific data types and taxonomies
    - More efficient to service: through direct integration with DCM & GA, as well as simple, UI-based configuration
- For the next 200K advertisers representing 52% of total spend our unified, free Google Attribution effort (Airborne) will be:
    - Cross-channel: for all Google and non-Google media, and also online to offline
    - Cross-device: leveraging Google signed-in identity
    - Actionable: can be used in bidding directly in our buying platforms
    - ...and, perhaps most importantly, *unified*, by collapsing all of our disparate offerings in AW, DDM & GA into a single one
    - Target segment:

For more detail, please see the .

Supporting 3rd party MMM providers:

All major CPG clients rely on MMMs (and it's becoming more common in Retail, Finance, Auto & Tech). MMMs have outsize impact on spend because they are used to set top-line budgets across channels. Particularly in verticals like CPG where existing providers (such as Nielsen, IRI and agencies) have a strong foothold, it's imperative that Google work well with these providers to ensure Google media is represented accurately and fairly. MMM can also be an extremely service and consulting heavy delivery, so partnering closely with 3Ps, rather than trying to do everything ourselves, is critical.

We have a 3 prong strategy here:

- With client permission, giving 3rd party MMM providers access to Google/DBM/YouTube Campaign Cost and Impression Data; in some cases paying for studies with DVIP funds
    - We aim to support over 1000 models in 2017 through this approach
    - With select MMM providers (such as Nielsen, Marketshare and MMA), we'll have term sheets in place helping to guide the use of the data and best practices
- Publishing & open sourcing our models, research and best practices to push the whole industry forward.

- Offering our own MMM solution as an example of end-to-end solution to retail & auto verticals and to round out our multi-channel attribution offering for those verticals.

TV Measurement (XMA, TV Attribution, Panels, TowerBridge, all in one)

TV Measurement is a special and important case of marketing measurement because 1) it represents such a large share of advertising spend for large advertisers and 2) shifting TV dollars to digital video advertising

In 2017, we can explore an early opportunity to take a set of TV-focused efforts and combine them to create a solution that helps advertisers measure across their TV and digital video advertising in a comprehensive and actionable manner. Specifically:

- TV attribution (launched in GA360 Suite) provides granular performance analysis
- XMA: provides granular reach analysis based on Fiber data (though presently lacks proper calibration)
- Panels: provides 3-screen reach and calibrated demo measurement, and can be used to calibrate XMA data
- Towerbridge: provide real-time TV ad monitoring (nearly) globally

By combining these assets, we have the opportunity to provide a solution that is differentiated by being:

- Granular (thanks to XMA and TV attribution performance granularity)
- Comprehensive (thanks to broad geographic coverage of Towerbridge & Panels)
- Multi-screen: thanks to 3-screen panels and Fiber TV data being GAIA keyed and capable of being connected to other Google data
- Actionable: through real-time data and integration into buying & planning tools

This is an early concept, but represents a large strategic opportunity.

GAIA, cross-device measurement & PII-based

Prior to Narnia 2.0, the division between our measurement strategy for platforms/network businesses versus Google O&O derived fundamentally from what our contract with users allowed us to collect and use. These divisions caused significant confusion, because it was not clear why we could do certain things for O&O and not for Platforms/Network, and vice versa. Cross-Device measurement and store visits are just two examples, with dozens of more subtle ones causing endless confusion.

Narnia 2 standardizes our contract with users across O&O and network/platforms. This provides a major opportunity to simplify measurement. For example:

- We can create a much cleaner story around measurement:
    - Media: measure all Google media

- Platforms: measure all Google media AND non-Google media/marketing (with no more asterixis and caveats)
- Unique value propositions for platforms measurement
  - By leveraging Google data like cross-device identity, store visits and other assets within the platforms environment, we can provide unique value to clients

A few related updates:

- **Google Analytics: Narnia impact & cross-device plans for 2017**
  - Narnia 2.0
    - *Existing functionality* - Google Analytics integrates with many different products within Google that themselves will be moving to Narnia (AdWords, AdSense, DBM, DCM, DS, DFP, etc). Our first order of business will be to work to maintain our existing pipelines, report & functionality. Though this will likely still require some new "controls" in GA that customers have to opt into or out of.
    - *New opportunities* - Narnia 2.0 also unlocks a number of new opportunities for our product and customers. Some of the top opportunities are: 1. Improved Cross-device, Online-to-offline (like Store Visits), & potentially reporting on Non-paid Search Query Terms.
  - Cross-device
    - *Existing functionality* - Google Analytics already provides comprehensive cross-device reporting for businesses who have their own logged in users (via our User ID feature)
    - *New opportunities* - Moving forward we are working to provide much more turn-key cross-device reporting (reporting that doesn't require extra work or client-side changes on the part of businesses). We are working to support this via our anonymous graph with Constellation first, and then eventually via our signed-in graph based on Narnia 2.0.

- **Google Analytics + CRM: In discussions with SalesForce.com for integration of GA with their CRM and also their marketing cloud**
  - Integrating CRM data with GA supports GA's mission of being the source of truth for helping a business understand & take action on their customer experience, behavior, and interactions.
  - Example use cases include ingestion of: offline conversions to enable full funnel (online to offline) analysis; and user attributes to enable more granular user profiling. We are in discussions with SalesForce to enable these use cases via an integration with their SalesCloud.
  - The scope of SFDC discussions also includes an integration with their MarketingCloud suite of products. MarketingCloud captures user event data via their Journey Builder product. For example, email events, mobile notifications, and customer service calls. All of this CRM event data could be ingested into GA to further its goal of being the source of truth and actionability for user data.

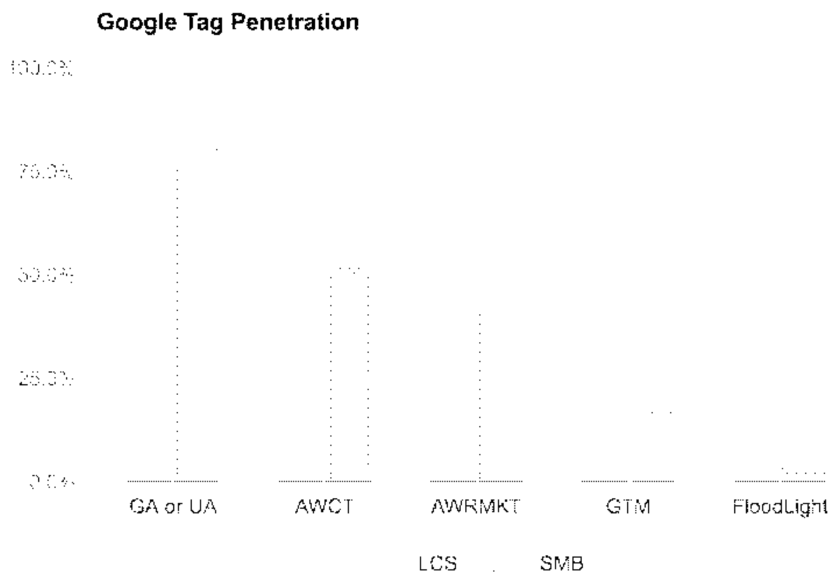
- **Attribution: Cross-device plans**
  - Attribution (both Free and 360) will leverage Constellation to provide cross-device, multi-touch attribution - this builds on the existing use of Constellation in the legacy Adometry platform
  - Since Attribution uses GA, DCM and GDN logs as its primary data sources, as these data collection systems migrate to GAIA-based logging following Narnia 2.0, Attribution will need to migrate to using the GAIA-based logs
  - As this happens, new use cases will open up, such as using Newfie Store Visits as conversions for cross-device, multi-touch, cross-channel attribution.

Simplifying our tags

One of the biggest sources of confusion for our customers is from using multiple Google Tags for same purpose. We have a few primary tags that are at times overlapping with each other:

- GA Tag: for 1st party site
- AWCT
- AWRMKT
- Floodlight
- DCLK Pixel

This is currently the state of our [14]:



Ideally we should end up in a state that we have one tag for on-customer-property conversion tracking and one for 3rd party sites; essentially one Google Tag (or forwarding solution), and

[14] This analysis was done by looking for known tag url signatures in the logs of the (the crawler used by the safe search team to look for malware).

importantly, a centralized place for customers to define the definition of conversion (or in case of GA, "Goals").
We actually have done this already on mobile via Firebase Analytics. We essentially have deprecated AWCT for apps and all conversions are being captured automatically via Firebase Analytics and then routed back to AW; we should do the same for Web (requires a task force with a cross-functional mandate to go tackle this).

We have recently kicked off a project called "Google One Tag" which is supposed to be a one tag (or container) to be deployed on sites and server-side it'd get configured to route the data to the proper collection system. This will get more formalized in Q4,16 and we'll invest in it more properly in 2017.

2) Scaled Brand Advertising Measurement

Brand Measurement investments span across the See, Think, Do pillars:

- See: was an ad seen by the right audience? Supported by the viewability and reach products.
- Think: What did they think after viewing the ad? Supported by the brand lift products.
- Do: How did it change their behaviors? Supported by Sales Lift.

Brand Measurement products support YouTube and our network as well as DoubleClick. In 2017 we will invest in our core metrics supporting YouTube and the network and double down on strengthening our offering for DoubleClick advertisers while expanding our offering for cross-screen measurement that includes TV.

Innovating and investing in our Core metrics for YouTube and the network

Our core pillars of investments across see, think, do are as follows:

- **Unique Reach**
  - Supporting an integrated solution for TrV reach across planning, buying and reporting
  - Data sharing with 3rd party reach offerings in order to ensure accurate measurement of YT and our network
  - Expanding reach measurement cross-screen include OTT and linear for campaign reporting
  - Enabling content measurement for YouTube creators
- **Active View**
  - Completing 3rd party viewability integrations powered by Active View
  - Working with YT in establishing presence metrics and exposing them on DoubleClick
  - Extending set of AV+ metrics in Athena and exposing the critical set in AW
  - Establishing custom viewability targets for vCPM buying on GDN/GVN

- **Brand Lift**
  - Optimizing to lift as part of TrV Impact through improving quality, extending to search lift and additional signals and establishing lifted users
  - Driving brand lift adoption through correlations, client level meta-analysis, improved reach and results reporting, comparability and automation
  - Continuing to invest in PrimeTime (Search Lift for TV) and expanding to Survey Lift with project Apogee
  - Pre-campaign creative testing using Brand Lift to help advertisers make better creative decisions
- **Sales Lift**
  - Launching store visit lift as a reliable proxy for sales lift for verticals like retail, large CPG advertisers and entertainment
  - Launching CPG offering in international markets

Online to Offline Measurement for Brands

Our goal is to provide **reliable, trustworthy and actionable** campaign-level sales measurement for our top 20 brands across CPG, Retail, QSR, Auto, M&E and Tech in our top 8 markets for brand advertising (US, UK, FR, DE, BR, JP, CA, AU). Our priority is to measure online video on YouTube (TrV and reserve/GP), DBM, and then GVP.

In general, our solutions will serve two purposes:

- Short term, we will measure a small number of large campaigns directly with sales lift and anticipate a "**halo effect**" of increased investment from positive results.
- Longer term, our **strategy is to prove that our brand lift metrics (search and survey lift) are credible proxies for offline sales**. For example, an advertiser will know that their campaign's 10% lift in purchase intent correlates with a 5% offline sales lift, without needing to directly measure sales lift for every campaign.

We have four pillars of investment in 2017:

- Scale US CPG
  - Extending current DLX offering to support YT reservations and DBM.
  - Continuing to improve match rates in order improve overall study success rates.
- Closing the gap with international CPG coverage
  - Due to fragmented data sources and different privacy/regulatory environments, there is no one-size-fits-all solution for international support for our largest opportunity (CPG). We need to invest in multiple partnerships e.g. with major retailers and measurement providers in order to close the coverage gap in our top 8 markets.
- Extend support to new verticals
  - Though CPG is our largest opportunity, measuring offline impact for (e.g. Retail) represents a major opportunity. Efforts such as Store Visit (Newfie) Lift and Swipe (usage of credit card transaction data) are ways we can offer sales lift for a broader set of verticals.
- Innovate to leap ahead

- Investing in areas such as can provide other solutions for measuring sales lift.

More details can be found in this .

Ubiquitous Brand Measurement in our Platforms

Viewable impressions are replacing served impressions as the impression currency. DoubleClick has historically served as the source of truth for impressions and is not currently positioned to be that source of truth for viewability unless we invest heavily. With the shift to viewability it's important for DoubleClick to adapt. Current market dynamics are creating a confusing state for publishers, agencies & buyers:

- MRC's definition of viewability (1 sec viewable for 50% of the pixels) is not fully accepted by everyone
- There are several players offering viewability metrics and they have semi-strong footprint: MOAT, IAS, DoubleVerify, etc...
- Larger Agencies (e.g. GroupM), still command the definition and also demand the viewability vendor they trust; hence publishers are forced to implement various different ones

DoubleClick is positioned strongly strategically with strong adoption across agencies and advertisers. We believe that we can re-position DoubleClick as a home for measurement by investing in building a compelling suite. We need to address some key gaps with viewability:

- Measuring all served and tracked impressions across display and video with a target of 90% measurability
- Offering a suite of viewability and engagement metrics
- Differentiating through insights on what drives lift and by offering best in class optimization and buying on DBM
- Advertisers expect viewability and verification/spam to go hand-in-hand, we should invest in extend the coverage of spam and verification to all tracked impressions as well

To further differentiate, we can offer a unique bundle to our advertisers that also includes metrics across reach and lift:

- Reach
    - Unique user measurement including slices like clicks, conversions, viewability and demographics
    - Choice through integrations with Nielsen and comScore
    - Integrated solution across planning, buying, optimization and reporting in DBM
- Lift
    - Brand Lift measurement including insights on what drives lift across publishers and viewability

More details can be found in this .

Panels (Consumer IQ)

Single-source Panels (SSPs) are a critical enabler to Google's TV and video strategy in that they provide the necessary ground-truth viewership data for both digital and 'traditional' linear TV across Google and non-Google properties, enabling Google to measure and report on cross-screen, cross-channel reach. In order to support the Google TV use cases outlined in this document, Google's SSPs must surpass certain industry standards for quality and measure key media across mobile, web, linear TV and over the top (OTT) TV.

Panels and AMT teams are ensuring that we'll be ready for these use cases (further described in the) in 2017 by focusing on the following:

- Developing and deploying a TV meter to measure linear TV viewing. This meter will attach to the TV and use Towerbridge to match the audio stream to a specific program.
- Add TV measurement to Single Source Panels* in countries where we need cross screen video measurement (in US and 1-2 additional markets in 2017).
- Calibrating Fiber set top box data with panel ground truth data and adding individual level measurement (household to user).
- Evolving the quality of Google Powered Panels to be able to achieve industry accreditation (e.g. MRC) to allow us to defensibly use our data in the market.

** Cost: For the U.S., panel investment to add TV to the calibration panel is estimated at ~$3M incremental above the $9.9M annual spend for mobile + desktop in year 1 and an incremental $1.6M annually thereafter. For full SSP (TV+mobile+desktop) with Google meters, spend with the panel vendor would be ~$13M in first year and ~$11.5M annually year 2 onward. See Global SSP .*

TV Measurement (Primetime and Reach)

In 2017, we will extend measurement of Reach and Brand Lift to TV in order to provide advertisers with better metrics to understand how their efficacy and reach compare across screens.

Brand Lift is making several big bets with the launch of Primetime (Search Lift for TV, late 2016) and continued pursuit of launching Apogee (Survey Lift for TV, 2017).

The first goal is to establish as a necessary metric for measuring the effectiveness of TV campaigns. To achieve early success, Primetime needs to achieve the following qualities. Advertisers trust the results that they see, and feel they are a **credible** measurement of the effectiveness of their campaign. Sellers should be able to **intuitively** create a story that demonstrates where Youtube succeeded. Primetime reports should be **reliable**, and users should get results every time they expect one.

Once we accomplish these underlying goals, we seek to not only strengthen the reputation of Brand Lift as the most trusted and reliable metric, but also to augment it as the only name in cross media measurement, through several initiatives.

- **Adding benchmarks, slices** (device, daypart, genre), **and more signals** (conversions, site visits) that allow clients to understand their results in a meaningful way.
- **Integrating** with **Extra Reach**, allowing clients to not only plan and optimize their campaigns against reach, but also lift, and **Interactive Benchmarks,** allowing advertisers to compare the success of their campaigns against their previous campaigns and those of their competitors.
- **Launching Apogee**, which allows advertisers to measure Survey Lift-based metrics.
- **Extending to DCLK**, adding TV measurement to Brand Lift measurement in Doubleclick

With Unique Reach, we are launching a global cross-device measurement solution (currently available for AdWords and YouTube via internal sales tools) across all Google properties and platforms (AdWords, DoubleClick, and YouTube). In 2017, we want to bring TV (programmatic and linear) as a core component of our reach measurement offering.

OTT Measurement

- **Co-viewing Reach**, extending our cross-device solution to include all devices that can serve video on demand content and inventory with a "co-viewing" reach model.

X-Media Reach

- **Self-serve cross-screen Reach planning**, bringing "Extra Reach" planning into DoubleClick to enable self-serve offerings for agencies and advertisers and extending the available inventory to include programmatic TV.
- **Cross-screen Reach reporting**, extending our "Extra Reach" planning capabilities to mid- and post-campaign reports, enabling advertisers to understand the incremental reach across digital (starting with YouTube) and TV campaigns.
- **Google's TV data**, using our own measurement capabilities (e.g., calibrated Fiber data, requires both Fiber STB and TV on SSP) to replace the need to rely on 3rd party data sources (e.g., Nielsen and Rentrak) to power our Reach tools and offerings.

Content Reach

- **Cross-screen Reach measurement for TV and content providers,** giving them the ability to understand their audience across all delivery channels

More details can be found in this .

3) User Behavior & Marketing Measurement

Google Analytics

Google Analytics mission is to be the source of truth for understanding & taking action on a business' customer experience, behavior, and interactions. At a high-level, it: 1) helps a business understand the entire customer journey 2) deliver intelligent insights 3) empower actionability.

Our free version focuses on the needs of smaller businesses with simple marketing strategies and straight-forward analytics needs. Its objective is to grow Google media spend & impact. Our paid version focuses on the needs of Fortune 1,000 marketers with complex marketing strategies and sophisticated analytics needs. Its objective is to grow the coverage of the overall media measurement of these customers, and secondarily to drive new direct revenue for Google.

In 2017 we have four major product areas: “Data”, “Integrations”, “Reporting & Intelligence”, & “Analysis & Users”. “Data” is focused on ensuring we have a best-in-class data model & product performance at enterprise scale. “Integrations” ensures that we have a comprehensive view of the customer journey & seamless way to take action on these insights inside and outside of Google. And lastly “Reporting & Intelligence” & “Analysis & Users” work together to provide ways for simple, powerful, intelligent, and actionable insights & exploration.

A sample of the major areas of development in 2017 are:

- Support Narnia 2.0 across our existing functionality, and with new & improved Cross-device and Online-to-offline capabilities
- Make all standard reports: “real-time”, “unsampled”, and “user-centric”
- Launch a new simplified navigation and reporting UI, and our new Assistant Insights & Natural Language Search
- Provide first-class support for combine “Web + App” analysis (including Apps powered by Firebase)
- Launch a powerful, fast, flexible and brand new “Analysis” section in the product

O2S Plans for GA

Newfie is a really important effort led by Kishore & Phil M and team. We are in discussions with them on how to leverage more of the Newfie infrastructure for GA:
Today, GA offers an online to store solution using User ID and Measurement Protocol where businesses can tie offline transactions data to online users that they can identify on their own (eg: via login or an online sales lead form). ~5.5% of AdWords RUM has enabled User ID feature.
However, we want to offer a more turnkey and scalable solution. We are developing plans (steering review in Sept’16) to integrate with Newfie to bring store visits insights into GA. Total addressable AdWords revenue for Newfie + GA is more than $6.0B. The solution will provide a foundation to support other store measurement solutions (such as Store Sales, Swipe etc.) in future.
We are also developing proposal for a *pure* offline / in-store measurement solution in partnership with Geo and Newfie team. The goal here is to provide GA like insights to businesses on their physical store traffic. This is an area that needs more Eng resource investments if we want make it successful in 2017.

Firebase Analytics (Apps)

As the core of Firebase, Google's mobile app developer platform, Firebase Analytics is the source of truth for mobile app data at Google (largely to enable various machine learning efforts) and a primary springboard to Google's media and platform businesses. With a successful launch at I/O 2016, Firebase Analytics is in market and rapidly scaling. Looking to H2 2016 and beyond, Firebase Analytics is aligning tightly to the the specific user personas it serves within Firebase and as they mature into to Google's other products (namely Marketers via the Google Analytics 360 Suite, Advertisers via AdWords, Publishers via AdMob, and Developers via Firebase, GCP, and Play). Firebase Analytics has a critical role to play as part of Google's overall measurement offerings and to win over app developers from Facebook's offerings – and is well positioned to do exactly that.

2017 Major areas of development include:

- Marketer Focus: Streamlined and enhanced integration with all of the GA 360 Suite
- Advertiser Focus: Configurable attribution windows, DCLK integration, Twitter, and expanded network support
- Publisher Focus: AdMob integration and publisher reporting
- Developer Focus: Realtime debug mode and reporting, unified event collection with Google Play, realtime BigQuery export, and expanded Firebase feature integrations

Optimize

Optimize enables GA customers to improve their site experience and conversion rates through experimentation, targeting, and personalization. Ultimately, better user experiences and higher conversion rates will lead to increased spend with Google. Optimize is built on top of GA and GTM, enabling users to get up and running quickly, in many cases with no tagging changes. Optimize launched in August 2016 as a paid product in the GA 360 Suite. To build support and expertise for the product among a broad community, we will launch a free version of Optimize in Q4 2016.

Major investments in 2017 include:

- Media Integrations. Initially an integration with AdWords.
- Personalization. Advanced capabilities to drive site wide dynamic personalized experiences.
- Intelligence. Providing insights and automation from opportunity discovery and analysis to deployment.

Additional detail can be found in the .

Data Studio

is a next generation Business Intelligence tool. Our vision is to help all business be more data-driven by making access to data (and analysis) easier. As the amount of data and datasource businesses have access to explodes, businesses are having a difficult time taking advantage of this data to make better business decisions. Google Data Studio

dramatically simplifies accessing, visualizing, and sharing data, enabling companies to get the most from their data.

In 2017 we will continue to target Large Google Advertisers via GA360 sales and 360 partners. We plan to increase the accessibility of the product by offering a standalone self-service version, as well as enabling the Google for Work team to distribute the product. Finally we will continue helping internal Googlers through our partnership with Corp Eng as well as enabling both LCS and SMB ad sales to simplify building custom reports for end advertisers.

2017 Major areas of development include:
- Enabling developers to build connectors to 3rd party systems
- Deeper integration with Google Cloud Services for data storage and processing
- Supporting richer data transformations such as joins, unions, and filters
- Simplifying reuse of reports and data sources through templates and gallery
- Adding a new analysis tool for users to visually explore their data

For more info, please see our .

Google Consumer Surveys (GCS) & Opinion Rewards (GOR)

Surveys are widely used by Google A&C teams to measure the effectiveness of ads (e.g. BrandLift), collect UGC reviews (e.g. Hotels), evaluate the quality of machine learning models (e.g. Now cards) and allow sales and research teams to understand user behavior and opinion. Despite the indisputable success of GCS for internal users, we haven't seen external researchers adopt it at the same pace, due in part to our constrained go to market and limited brand awareness. In 2017 we're going to solve this by:

- Relaunching GCS as Google Surveys 360 in the Suite, narrowing our product focus on solving for the digital marketers use cases that are most aligned with GA360.
- Launching an integration with Google Forms to become the front-end for research by the 50M 30DA Apps users who are largely "non-researchers". This is our approach to democratize research, and as a by-product it will help boost demand through our planned freemium model.

The above will simplify our external go to market, but we also need to massively grow survey demand in order to allow us to expand our install base for Google Opinion Rewards and keep our publisher network healthy and serving the needs of key clients like BrandLift. In order to balance respondent growth and demand we're going to:

- Partner with Play to promote GOR directly in the Play store in all key markets -- this will reduce our cost to drive installs (currently ~$7-9 / install)
- Allocate a per user slush-fund fill the survey gaps for users not receiving surveys frequently enough* from A&C partners
- Launch GOR in NBU markets and iOS to have panels in all markets required by A&C
- Begin serving BrandLift studies across the 402 publisher network
- Explore big opportunities like automated brand health tracking for all advertisers, or automated retail satisfaction surveys for all merchants in Google MyBusiness

For more info, please see our .

** we'll run experiments to decide what the optimal survey frequency is*

Tag Manager

Tags are the instrumentation layer for measurement for websites and mobile apps. The more sophisticated a marketer, the more complex their tagging challenges become. Google Tag Manager and Tag Manager 360 play a crucial role in solving tagging problems for customers and increase the quality of data being collected through tools provided by Google and 3rd parties while also increasing the speed of deployment. In 2017, Tag Manager will continue to focus on solving complex problems for Google's enterprise customers, but starting in H2 2016 Google Tag Manager is doubling down on this strategy by focusing on adoption and growth of Tag Manager 360 specifically.

2017 Major areas of development include:

- Enterprise workflows
- Improved ease of use
- Vendor neutrality (increased tag support)
- Increased platform support

GA 360 Suite Core

Suite Core is the platform that ties together all of the suite products and provides administrative and management capabilities. The stated mission of the team is to enable suite cross-product management, insights, and actionability through seamless product integrations, holistic data management, and consistent user experience. Suite Core launched in July 2016 providing a common header across suite products, cross-product summary reporting, basic user management capabilities, and integrated billing.

2017 Major areas of investment include:

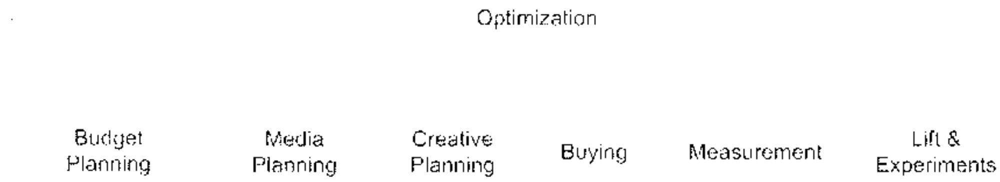
- Advanced user management and organizational modeling
- Data and integrations: Facilitating integrations among suite products as well as with external data sources
- Common Assets: Starting with shared audience capabilities
- Suite wide Insights and actionability

Additional detail can be found in the .

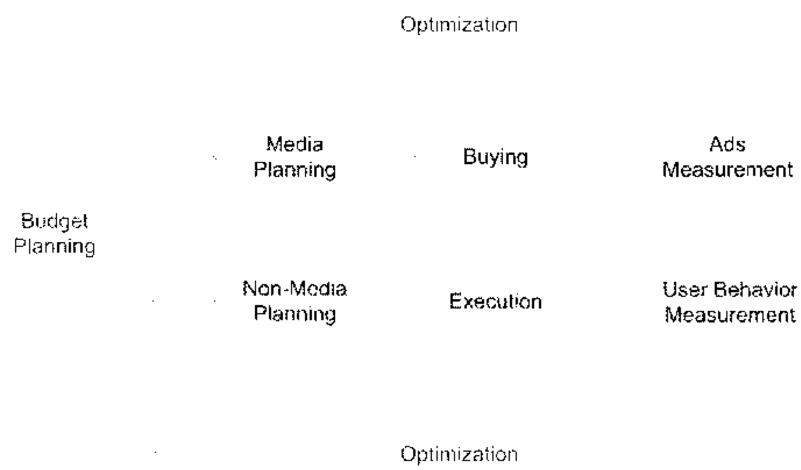
Commercialization Ideas

Closer Partnership between GA360 & DCLK

There are many models to describe the high level workflow of modern marketers; here is perhaps one of those models[15]:



Measurement components of AW & DCLK follow this model seamlessly, but with Google Analytics 360 Suite, at times it follows other paths in the customer organization. GA360 contains products that specialize in behavioral & overall marketing measurement and it is also supposed to be our objective measurement business unit (not that DCLK is not objective, but DCLK is closer to buying functions and agencies) and is targeted at different parts of the customer organization than DCLK: for instance, a big use case of Google Analytics is to learn how to make a better product/app/site or do non-paid marketing campaigns (e.g.email); however, those measurement outputs (e.g. from GA) can also result in media optimization for sophisticated marketers.



Ideas how to gain more efficiencies between DCLK/GA360:

This division between 1st/3rd Party user measurement and media buying measurement is non-optimal at times and sometimes causes inefficiencies both for the customers as well as Google. In a world that we are trying to enable customers capture "Micro-Moments", We have an

[15] This was deduced after consulting with our Google marketing gurus

opportunity to enable more advertisers have direct access to customer-behavior data during their buy/planning phase.
Currently, this is a rough picture of our offering to our customers:

App Developers	1st/3rd party User Measurement/Optimization	Ads Buy/Sell/Measure Platform	Google O&O Media

App Developers

Google Firebase

1. Firebase Analytics
2. Firebase Toolkit (hosting, messaging, storage etc..)
3. AdMob
4. *AW for apps

1st/3rd party User Measurement/Optimization

Cross-Channel Platform

Enterprise:

1. Analytics 360
2. Attribution 360
3. Optimize 360
4. Audience Center 360
5. Tag Manager 360
6. Data Studio 360
7. Survey 360

Free:

1. Analytics + Attribution
2. Attribution
3. Optimize
4. Tag Manager
5. Data Studio

Ads Buy/Sell/Measure Platform

Cross-Channel Platform

Enterprise

Buy-side:

1. DCM
2. Attribution (MCF)
3. DBM
4. DS
5. Creative Studio
6. AdX

Sell-side:

1. AdX
2. DFP

Google O&O Media

Google O&O Media

Buy-side:

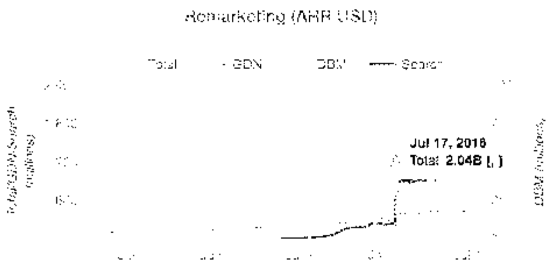
1. AW (Search Ads)
2. Attribution
3. YouTube
4. GDN
5. Shopping
6. PlayStore

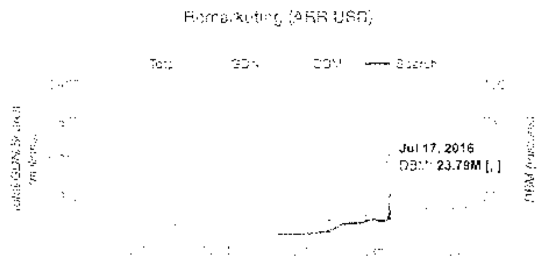
Sell-side:

1. AdSense

Firebase is great because it's a springboard for App developers to connect with other Google services. But the map above shows that we have 2 cross-channel enterprise platform solutions: GA360 Suite & DCLK with 2 different sales/services teams.
There is a spectrum of ideas that we can think about; ranging from "Do-nothing" to "most extreme: combine both platforms together" (the latter has lots of trade-offs):

1. **Re-assess our GA RMKT via DBM:**
   - One example of area where we have shown this inefficiency is with remarketing (due to product/commercialization/services/integration problems). GA RMKT has surpassed $2B ARR in spend, only $24M of that is via to DBM:





- Linking between GA/DBM needs to improve a lot (right now it's not self-serviced); we are working on this.
- Right now in order to do RMKT from GA lists on DBM you need to be on GA360 (Paid version); we are re-assessing to see if we should open it up to Free GA accounts as well (the key question is how many Free GA account owners are active on DBM and what's the business opportunity there, since it'd take away one of the differentiations of GA360 vs. GA-free).

2. **Tagging:** We have an opportunity to simplify & perhaps consolidate our tags. See here more on our .
3. **# 2, plus Closer Sales efforts:** Have a more unified sales pitch process between GA360, DCLK & LCS teams. There has to be a way for us to unify our goals better (e.g. joint quota goals, etc…)
4. **# 3, plus Closer Marketing efforts:** right now we have 2 different marketing efforts for our platforms efforts, maybe we can bring them closer to together.
5. **# 4, plus closer brands:** how to align the brands better together? Marketing/Branding teams are looking at this.
6. **#5, combine our App switchers & headers:** this would effectively signal that GA360 & DCLK are in process of unifying (which has trade-offs: might confuse some customers but also may make them aware of more of our products as family of one)
7. **#6, plus combine both platforms together:** which might turn into a multi-year effort (may or may not be a distraction to our other big efforts).

GA360 Enterprise Services Offering 2.0

As our product suite has grown in scale and complexity, we've had to increase the number of resources allocated to enable client success. We've seen significant investment in supporting DBM and to a lesser extent GA360. While clients are sometimes willing to pay for higher touch service, Google's headcount model makes it challenging to staff in a way that meets that demand. So, to scale our support for these products, we propose moving to a model which orients our growth in services by focusing our efforts on 3rd parties, . This re-orients responsibilities in services between Googlers, vendors, resellers, and partners as follows:

Googlers -- Responsible for supporting a limited/fixed number of new client implementations/onboarding per quarter. This is necessary to give product and eng direct access to our most strategic clients for betas and ongoing product feedback. Googlers will also be responsible for maintaining the knowledge base and fielding escalations from vendors, resellers and partners.

Vendors -- Responsible for providing all post-onboarding support for Google's direct clients.

Resellers -- Responsible for selling and supporting the vast majority of our clients. Most revenue growth would be driven by resellers.

Partners -- Responsible for providing paid support to Google's direct clients for services that are outside the scope of our menu of services. For example, if a client wants to do a complex integration with their CRM or provide customized training sessions for various internal stakeholders, these types of services could be fulfilled by a network of certified partners.

The single biggest dependency to ensure our ability to execute the above model is to ensure that every Google product has tools and interfaces that enable 3rd parties to sell and support them. The growth of any product that lacks those tools and interfaces will always be headcount constrained.

4) Research & Advanced Media measurement (Non-scaled)

Sales Lift: Receipt Collection

- Google would like to provide precise measures of campaign ROI to prove the value of our ads. Collecting purchase data from consumers has advantages over partnerships with 3rd parties.
- Sales receipts contain information that is valuable for users and Google. We propose a set of shopping features, based on receipt data, that will create enough value for users to share their sales receipt data with us.

Cross-Screen Video Measurement

To power DVAA's efforts in video and help our large brand advertisers move TV budgets to Google, we need to provide cross screen measurement of video consumption. In order to do this, we need a ground truth data set for both digital viewing and 'traditional' linear TV viewing and need to add TV and OTT viewing measurement in our address sampled single source panel (SSP).